From: Latham (Polinko), Janine
To: Gaines, Brett; Delgado, Eric
Cc: Raj.Dutt@WestonSolutions.com; Danielson, Jeff
Subject: RE: West, TX ASPECT Post-Event RGB Image Service
Date: Monday, May 06, 2013 2:01:00 PM

Thanks.

We will work with the ASPECT guys more on their delivery. Grace Smith with EPA R2 had established the delivery in the jpg2 and thought this was a good way to get the images quickly after the initial flights.

We are going to have to also work out with the NDT, the best place for cached imagery services. This is one of our discussions we are going to have when moving to the ERT cloud at the national level.

Thanks again.

Janine Polinko Latham
(469) 666.5511 Direct
(215) 620.5664 Cell
janine.latham@westonsolutions.com

From: Gaines, Brett [mailto:Gaines.Brett@epa.gov]
Sent: Monday, May 06, 2013 1:57 PM
To: Latham (Polinko), Janine; Delgado, Eric
Cc: Dutt, Rajendra (Raj); Danielson, Jeff
Subject: RE: West, TX ASPECT Post-Event RGB Image Service

No problem, and of course it will all depend on the actual data we are provided for how it needs to be processed in the future since there are so many different processing algorithms and the spectral response/radiance will vary greatly depending on all sorts of factors.

For this dataset, it was possible to do it in ArcGIS and get a fairly good result. I just loaded the .jp2's into a gdb (mainly to keep everything organized, but also to speed up processing time) and created pyramids, then I created the mosaic using these gdb rasters. The default setting for Esri's mosaic of drawing from the northwest corner would have worked pretty well in this case if it wasn't for the vignetting and/or artifacts on the aerials. Then I created new seam lines using Esri's algorithm they call "Radiometry" (there are better choices in ERDAS, ENVI, or eCognition for this step if Esri's doesn't work so well next time). I used the sort method of "by attribute", and I made sure that the key aerial which showed the Target Area (Explosion location and location to the west with the most damage shown) was going to be drawn on top with the least seams by giving it a 1 in the Z-order attribute. I think I used a blend width of 20px (type: both) for that version of the service on RM Cloud.

For future uses, access to the uncompressed imagery and also generating a server-side tile cache of the mosaic for at least the Target area would likely be beneficial for us.

Brett Gaines
Lockheed Martin
EPA R6 GIS Support Team
214.665.8560
Gaines.Brett@epa.gov

From: Latham (Polinko), Janine [mailto:Janine.Latham@WestonSolutions.com]
Sent: Monday, May 06, 2013 1:30 PM
To: Gaines, Brett; Delgado, Eric
Cc: Raj.Dutt@WestonSolutions.com
Subject: RE: West, TX ASPECT Post-Event RGB Image Service

Brett. Thanks Looks good. Can you let us know how you processed this so we can document for future ER's? and to compare to what we did?

Thanks.

Janine Polinko Latham
(469) 666.5511 Direct
(215) 620.5664 Cell
janine.latham@westonsolutions.com

From: Gaines, Brett [mailto:Gaines.Brett@epa.gov]
Sent: Tuesday, April 30, 2013 11:18 AM
To: Delgado, Eric
Cc: Dutt, Rajendra (Raj); Latham (Polinko), Janine
Subject: RE: West, TX ASPECT Post-Event RGB Image Service

Here is the new Image service if you'd like to compare it to the original:
http://gis.eparesponsemanager.net/eparmgis/rest/services/EPAR6/WestTexas_ASPECT_PostEventRGB_v1/ImageServer

There is a painfully obvious NoData area northwest of the explosion site which has almost doubled in size in this version compared to the current version due to how the tiles were processed, but I'm looking into a solution for that (and also curious how ASPECT missed an area in the middle of the AOI?) The artifacts from ASPECT's processing scripts have mostly been taken care of (it would be great if we can get the raw imagery from them next time, and if they have an NIR band, that could be useful as well).

This service also is still pretty slow in serving the tiles to the web browser. If we want to speed that up in the future, then generating a tile cache would likely be highly beneficial, and also take up a good amount of hard drive space.

Brett Gaines
Lockheed Martin
EPA R6 GIS Support Team
214.665.8560
Gaines.Brett@epa.gov

From: Delgado, Eric
Sent: Monday, April 29, 2013 9:14 AM
To: Gaines, Brett
Subject: ASPECT Image Service

ASPECT collected imagery of the site and loaded it to their FTP
site: ftp.epaaspect2.net
user: (b) (5)
pass:

http://gis.eparesponsemanager.net/r6/WestFertilizer/

UN: (b) (5)
PW:

Eric Delgado, OSC
USEPA R6
214-437-9809
delgado.eric@epa.gov